

Publication

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Application

EP 95921974 A 19950615

Priority

- JP 9501199 W 19950615
- JP 18858694 A 19940810

Abstract (en)

[origin: WO9605638A1] A laser oscillator which is protected from damage due to reflection from a workpiece while maintaining its productivity. A turn-back mirror (3) is interposed between a rear mirror (2) and an output mirror (4) inside the laser oscillator. The turn-back mirror (3) has a coating, which reflects efficiently S polarized light but has low reflectivity to P polarized light. The laser beam (1) amplified between the rear mirror (2) and the output mirror (4) is outputted from the output mirror (4). The laser beam (1) outputted at this time is S polarized light (1a). The output light (1a) is converted to circular-polarized light by a 0 DEG C shift mirror (5) and a 1/4 wavelength phase delay mirror (6). The laser beam (1) so converted to circular-polarized light changes its direction to a vertical direction at a mirror (7) and is converged on a workpiece (9) by a condenser lens (8). A part of the laser beam (1) emitted to the workpiece (9) is reflected and returns through the outgoing route. When this reflected light is incident to the output mirror (4), it changes to P polarized light (1b) and is attenuated by the turn-back mirror (3) at the time of reflection inside the laser oscillator.

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H01S 3/081

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Citation (search report)

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- [Y] EP 0358769 A1 19900321 - FANUC LTD [JP]
- [Y] EP 0485619 A1 19920520 - FANUC LTD [JP]
- See references of WO 9605638A1

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